AEP OHIO EX. NO._________

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement for Inclusion in the Power Purchase Agreement Rider	))))))	Case No. 14-1693-EL-RDR
In the Matter of the Application of Ohio Power Company for Approval of Certain Accounting Authority	)))	Case No. 14-1694-EL-AAM

DIRECT TESTIMONY OF
RENEE V. HAWKINS
IN SUPPORT OF AEP OHIO'S
AMENDED APPLICATION

Filed: May 15, 2015

INDEX TO DIRECT TESTIMONY OF
RENEE V. HAWKINS

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO
DIRECT TESTIMONY OF
RENEE V. HAWKINS
ON BEHALF OF
OHIO POWER COMPANY

PERSONAL DATA

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Renee V. Hawkins and my business address is 1 Riverside Plaza, Columbus, OH 43215

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by American Electric Power Service Corporation ("AEPSC"), a wholly owned subsidiary of American Electric Power Company, Inc. ("AEP, Inc."), as Managing Director, Corporate Finance and I am also the Assistant Treasurer of AEP, Inc. and its operating companies ("AEP System"), including Ohio Power Company ("AEP Ohio" or "Company"). AEP, Inc. is the parent company of AEP Ohio.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. I earned a Bachelor's of Business Administration Degree in Finance and International Business from the Ohio State University in 1987. I earned a Masters of Business Administration with a concentration in Finance from the Simon School at the University of Rochester in 1991. I was first employed by State

Teachers Retirement System of Ohio in 1987 in the Real Estate section where I was assigned to asset management.

In June 1991, I was employed by General Motors as an analyst for AC Delco, which is now a subsidiary of Delphi East. This rotational program included positions in cost accounting, division finance, and capital planning. In June 1993, I was hired by Cablevision Systems Corporation, first as a Senior Financial Analyst and then promoted to Treasury Manager. My responsibilities included managing capitalization and liquidity for a number of subsidiaries and cable systems in northern Ohio and Massachusetts. Included in those responsibilities was raising capital through bank markets and financial markets, managing compliance under various financial agreements, and supporting investor and rating agency relations.

In October 1996, I joined AEPSC as a Corporate Finance Senior Analyst supporting financing activity for the AEP System operating companies. In July 1999, I was named Manager – Corporate Finance of the AEPSC. In June 2000, I was named Director – Corporate Finance of the Service Corporation, a position that was renamed Director – Regulated Finance in 2001. In that capacity, I was responsible for capital markets activity for all of the regulated utilities, and such things as establishing dividend recommendations and capitalization targets, supporting the rating agency relationships to maintain credit ratings and assisting in the management of liquidity for the overall AEP System. I was then promoted to Managing Director, Corporate Finance in 2003. In January 2008, I was made Assistant Treasurer of AEP, Inc. and its operating companies.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN ANY REGULATORY PROCEEDINGS?

A. Yes. I have most recently filed testimony on behalf of AEP Ohio before the Public Utilities Commission of Ohio ("PUCO" or "the Commission") in support of AEP Ohio's Electric Security Plan (ESP) in Cases No. 13-2385-EL-SSO and 13-2386-EL-AAM and in the distribution base rate case in Case No. 11-351-EL-AIR and Case No. 11-352-EL-AIR and in the previous 2011 ESP cases. Also, I have filed testimony and testified on behalf of Appalachian Power Company before both the Public Service Commission of West Virginia and the Virginia State Corporation Commission. I have testified on behalf of Indiana Michigan Power before both the Indiana Utility Regulatory Commission and the Michigan Public Service Commission. I have testified for Southwestern Electric Power Company before both the Arkansas Public Service Commission and the Public Utility Commission of Texas. Finally, I have testified on behalf of Public Service Company of Oklahoma before the Corporation Commission of the State of Oklahoma.

PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of this testimony is to support the appropriate capital structure and cost of capital for the formula rate contract between AEP Ohio and AEP Generation Resources, Inc. ("AEPGR").

Q. WHAT EXHIBITS ARE YOU SPONSORING?

A. Exhibit RVH-1 Return on Equity Review

CAPITAL STRUCTURE AND COST OF CAPITAL

Q. ARE THERE DIFFERENCES BETWEEN HOW AEPGR IS FINANCED VERSUS A TRADITIONAL UTILITY?

A. Yes. The debt or leverage that a company can comfortably manage while maintaining adequate access to the capital markets at reasonable rates and/or maintain investment grade credit ratings is dependent on the industry and the business profile of the company. Regulated utilities have historically been able to maintain higher leverage than other industries. On the other end of the spectrum, commodity-based businesses and merchant power companies with significant capital or collateral needs have historically needed to maintain lower leverage to maintain a similar risk profile. As a company actively trading in the power markets and subject to volatile power and commodity prices, AEPGR must maintain a high equity layer to support a business profile consistent with an investment grade rating. This ensures access to liquidity for collateral requirements.

Q. HOW IS AEPGR CAPITALIZED CURRENTLY?

A. As a merchant generating business exposed to both volatile power prices and commodity prices, AEPGR has a capital structure more weighted to equity. As of Decmeber 31, 2014, AEPGR's capital structure was 30% debt and 70% equity. AEP is targeting a capital structure of 70%-65% equity for AEPGR to ensure that has adequate access to capital for its business and to manage collateral requirements. The targeted capital structure is consistent with investment grade ratings in other unregulated industries and consistent with the necessary leverage for investment grade financial credit metrics as well.

Q. WHAT IS THE PROPOSED CAPITAL STRUCTURE IN THE CONTRACT?

A. The Company is proposing that the contract be based on a fixed capital structure of 50% long-term debt and 50% equity. This is lower than the current equity position of AEPGR, but using this capital structure instead of AEPGR's actual capital structure recognizes the benefits to AEPGR from the long-term nature of the contract and the stability of the cash flows from the contract. With the additional stability in cash flows, AEPGR is willing to include this capital structure to further customer benefits from the contract.

Q. WHAT IS THE PROPOSED COST OF DEBT FOR THE INITIAL RATE SETTING AND THE METHODOLOGY THEREAFTER?

A. While the Ohio generating assets transferred to AEPGR on December 31, 2013, AEPGR has not yet permanently financed the assets. Consequently, the cost of debt is still based on interim financing through May 2015 and is not representative of the expected long-term cost of debt of AEPGR and a proxy will be necessary for the long-term debt rate in the cost of capital. The proposed proxy for the initial rate setting is the yield based on a broadly available corporate index debt, the Moody's Baa Corporate Bond Index ("Moody's Index") based on the monthly average for December of the previous year. This index is readily available on the Federal Reserve website and through other publications. The average for the Moody's Index in December 2014 was 4.74% and is a conservative proxy for the expected cost of capital for the debt financing for AEPGR. The Moody's Index rate would be used until 2017.

Q. DID THE COMPANY EVALUATE OTHER DEBT RATES TO USE FOR THE INITIAL RATE SETTING?

A. Yes. The Company evaluated using AEP Ohio's embedded cost of debt (6.05%) from the most recently filed ESP case, although that debt includes issuances under various interest rate environments. I also looked for comparable merchant power company issuances, and the most recent of which was an April 2014 issuance by NRG Energy in which that company issued notes at a spread of 3.52% over the 10 year treasury or a yield of 6.625%. Both of these comparables are significantly higher than the Moody's Index rate of 4.74% proposed. However, based on today's interest rates, the comparable cost of AEPGR issuing new bonds in this environment should be closer to the Moody's Index and the company proposes using that rate until such time as AEPGR arranges long-term financing.

Q. WHAT IS THE PROPOSED COST OF EQUITY FOR THE PPA?

A. As part of the determination of the contract between AEP Ohio and AEPGR, a formula was developed to calculate the return on equity ("ROE") using the average of the daily Moody's Index for the month of December of the preceding calendar year, plus 650 basis points. This floating ROE recognizes the change in capital costs that occur over longer periods of time and is appropriate for a long-term PPA such as the one proposed in this application.

This PPA is expected to go into effect later in 2015, meaning the initial ROE will be set by using the daily average Moody's Index for the month of

December 2014. The daily average value for the Moody's Index for that period was 4.74%, which would result in an initial ROE of 11.24% based on that value plus 650 basis points. Exhibit RVH-1 includes the calculation of the return on equity.

Q. IS THERE A BAND ON THE ROE RANGE?

A. Yes. Consistent with the approach that we have used in FERC wholesale contracts, if the ROE based on the formula calculation were to be below 8.90% or above 15.90%, then the lower or upper threshold rate would apply such that the ROE can never go below or above these thresholds. This ROE band recognizes that while the ROE should be allowed to vary within a range, both customers and the Company are protected if interest rates experience a period of high volatility.

Q. HAS THIS ROE APPROACH BEEN USED PREVIOUSLY?

A. Yes. AEP utilities have entered into wholesale power agreements approved by the Federal Energy Regulatory Commission ("FERC") and this ROE method is consistent with the approach utilized in those FERC authorized contracts. The proposed premium adder to the Moody's Index is slightly higher than the adder used in those contracts, but that adder recognizes that the cost of equity for AEPGR is higher than that of the other AEP subsidiaries. However, these wholesale contracts had an ROE band with a ceiling as high as 21% and the ceiling of 15.90% proposed in this contract is much more favorable than the ceiling included in the agreements with non-affiliates.

Q. HOW WAS THE ROE EVALUATED?

A. The ROE was evaluated applying a Capital Asset Pricing Model ("CAPM") of utilities within our peer group as well as merchant companies and other industries. The ROE was then adjusted for the size premium consistent with CAPM methodology. The average cost of equity as of year-end 2014 for our peer group, using a re-levered beta to reflect a 50/50 capital structure, is 11.63%. A spread of 1.75% was added to this to reflect a size premium, resulting in an ROE of 13.38%. . The CAPM methodology confirms that the 11.24% ROE that I have proposed for AEPGR is conservative.

Q. HOW WAS THE PEER GROUP DETERMINED?

A. The peer group consists of 52 U.S.-based utility companies. The companies were chosen by selecting all companies that are traded on NYSE or NASDAQ and classified as either electric utilities or multi-utilities (electric and gas utitilities) using the Global Industry Classification Standard or GICS. These companies are mostly holding companies for regulated utilities. Companies that are classified as Gas Utilities, Independent Power Producers or Water Utilities are excluded from the peer group. Use of this peer group recognizes that the PPA will reduce the merchant risk of AEPGR and allows the ROE proposed in this case to reflect this lower risk.

Q. WHAT WAS THE EQUITY RISK PREMIUM USED IN THE CAPM MODEL?

A. I took the equity risk premium, which was 7.0%, from Ibbotson SBBI 2014 Classic Yearbook ("Ibbotson"). The methodology used by Ibbotson is an arithmetic total equity return for large company stocks over the period beginning with 1926 and ending with 2013. This total equity return was 12.1%. The same methodology was then used for the risk free rate, based on a 20-year treasury, to arrive at a rate of 5.1% over the same period. The reason for using a 20-year treasury is due to the 30-year bond not being historically available through much of that period. While the 20-year treasury is no longer quoted, a 20-year index was created by Ibbotson using bonds on the market with approximately 20 years to maturity. This is done in order to keep the methodology consistent over the 88 year period. The difference between the total return for large company stocks and the risk free rate is the equity risk premium.

Q. IS THE LONG HORIZON USED TO DETERMINE THE EQUITY RISK PREMIUM APPROPRIATE?

A. Yes. The period beginning with 1926 is used because it is representative of a greater array of potential market disruptions, both positive and negative, than a shorter time period would be. As Ibbotson points out, the types of disruptions that can be accounted for over the long horizon involve "high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression."

Q. WHY WAS A SIZE PREMIUM INCLUDED IN THE ROE?

A. The CAPM does not fully account for the higher returns of smaller companies. The Ibbotson SBBI 2014 Classic Yearbook ("Ibbotson") points out that a "size-related phenomenon has prompted a revision to the CAPM, which includes a size premium." AEPGR's capitalization as of December 2014 was approximately $3.4

billion. The capitalization proposed in this application includes 50% equity, or \$1.7 billion, placing it in the 6^{th} size-decile of Ibbotson. The size premium for that decile is 1.75%. This is appropriate given that, as described in Ibbotson, the greater risk of smaller companies does not fully account for their higher returns in the context of a basic CAPM.

Q. WAS A CAPM ANALYSIS CONDUCTED FOR MERCHANT PLANTS OR OTHER INDUSTRIES?

A. Yes. As additional tests to confirm that the 11.24% is an appropriate ROE for the PPA contract, I evaluated the cost of equity for both independent power producers and for similar types of industries also using the capital asset pricing model ("CAPM") methodology that I used for the utility peer group described previously. The betas used in the analysis were based on those betas calculated by the Bloomberg subscription service.

First, I looked at comparable merchant businesses, although there are only a handful of such companies that are publicly traded. This merchant peer group is problematic in part because it is a small group to use for a comparison and also because of its history with bankruptcy. Three of the seven (NRG Energy, Inc., Dynegy Inc. and Calpine Corporation) have filed for bankruptcy protection within the last twelve years, and one (AES Corp.) had one of its subsidiaries declare bankruptcy three years ago. Pattern Energy emerged in 2009 from the remnants of Babcock & Brown's bankruptcy. Given the history of bankruptcy with this peer group and the volatility implied therein, the equity beta of 0.81 assigned to the group by Bloomberg appears unrealistically low.

Because these companies are not investment grade their (levered) betas for the companies are not consistent with the betas for companies whose capitalization meets the requirement for investment grade ratings. Accordingly, the betas were re-levered to provide an investment grade comparison for AEPGR. Based on this re-adjusted beta methodology, the CAPM cost of equity, together with the size premium, for the group is 12.55%. The lower proposed ROE of 11.24% and the proposed cap on equity percentage for the PPA is reflective of the lower risk of the PPA.

Q. DID YOU EVALUATE THE COST OF EQUITY FOR COMPARABLE INDUSTRIES?

A. Yes. Because of the limited data points for merchant businesses, other industries with similar characteristics were also evaluated. The industries evaluated were those that have comparable capital requirements and commodity risk and include: metals & mining; chemicals; oil, gas & consumable fuels; construction; and transportation. Using relevered betas and CAPM to determine the cost of equity, the cost of equity for these comparable industries ranged from 15.18% to 19.58%, again adjusted with a size premium of 1.75%.

Q. ARE THE COST OF EQUITY ESTIMATES FOR THE PEER GROUP, THE MERCHANT BUSINESSES AND THE COMPARABLE INDUSTRIES CONSISTENT WITH AND DO THEY SUPPORT THE COST OF EQUITY ESTIMATES FOR YOUR PEER GROUP.

A. Yes, these CAPM estimates do support the proposed cost of equity included in our proposal. The company took a balanced approach of evaluating merchant businesses, utilities and other industries with similar characteristics. These estimates support the reasonableness of the ROE included in the proposal.

Q. **PLEASE DESCRIBE THE RESULTING COST OF CAPITAL BASED ON THE DEBT AND EQUITY COMPONENTS DISCUSSED ABOVE.**

A. The table below shows the resulting cost of capital used to develop the fixed charge in the initial capacity payment.

Proposed cost of capital

Component	% of Total	Cost	Pre-Tax Cost of Capital	After-Tax Cost of Capital
Debt	50%	4.74%	2.37%	1.51%
Equity	50%	11.24%	5.62%	5.62%
			7.99%	7.13%

Q. **WHAT OTHER INFORMATION DID YOU REVIEW TO DETERMINE THE REASONABLENESS OF THE APPROACH?**

A. The Brattle Group was retained by PJM to complete the periodic review of key parameters in the Variable Resource Requirement, and one of those parameters was the Cost of New Entry ("CONE") which included the expected cost of capital. I reviewed the Battle Group's cost of capital results included in the draft study results titled "**Triennial Review of RPM"**. The draft study recommended an after-tax weighted average cost of capital ("WACC") estimate of 8%, based on a 13.8% ROE and a 7% cost of debt with the debt percentage at 60%. Although, the cost of capital components vary from those projected for use in the PPA under consideration in this proceeding, the overall after-tax cost of capital is higher in the CONE than is being proposed in this application. This was an independent confirmation of the reasonableness of my approach and results.

Q. WAS YOUR APPROACH TO THE COST OF EQUITY AND THE CAPITAL STRUCTURE BALANCED?

A. Yes, the approach was balanced if not conservatively determined in favor of the customers. Both a higher return on equity as well as a larger equity ratio in the capital structure are readily supportable by the evidence and may better reflect the long-term overall costs of AEPGR. However, my recommendation for the proposed ROE methodology results in a current ROE of 11.24% and a capital structure of 50% debt/50% equity to balance the overall customer impacts against the actual cost of capital of AEPGR.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

AEP Ohio
Case No. 14-1693-EL-RDR
Case No. 14-1694-EL-AAM

	Moodys Baa Corporate		Margin		ROE
OH PPA ROE	**4.74%**	+	**6.50%**	=	**11.24%**

Return on Equity Evaluation

Risk Free Rate (R_f)[1]	5.1%
Equity Risk Premium[1]	7.0%

CAPM	R_f		β		Risk Premium		Unadjusted ROE		AGR Size Premium[2]	Comparable ROE
Power Sector										
Utilities	5.1%	+	0.9335	x	7.0%	=	11.63%	+	1.75%	13.38%
IPP & Renewables	5.1%	+	0.8143	x	7.0%	=	10.80%	+	1.75%	12.55%
Other Industries										
Metals & Mining	5.1%	+	1.6958	x	7.0%	=	16.97%	+	1.75%	18.72%
Oil, Gas & Renewables	5.1%	+	1.1899	x	7.0%	=	13.43%	+	1.75%	15.18%
Chemicals	5.1%	+	1.6891	x	7.0%	=	16.92%	+	1.75%	18.67%
Construction	5.1%	+	1.8193	x	7.0%	=	17.83%	+	1.75%	19.58%
Transportation	5.1%	+	1.6272	x	7.0%	=	16.49%	+	1.75%	18.24%
Average							**14.87%**			**16.62%**

[1]Source: *Ibbotson SBBI 2014 Classic Yearbook, page 154.*
[2]Source: *Ibbotson SBBI 2014 Classic Yearbook, page 109.*

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of Ohio Power Company's *Pre-Filed Direct Testimony of Renee V. Hawkins* have been served upon the below-named counsel and Attorney Examiners by electronic mail to all Parties this 15th day of May, 2015.

/s/ Steven T. Nourse
Steven T. Nourse

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